

Improvements in and relating to gear wheels

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Inventor:

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PRIMROSE YOUNG; ALBERT GEORGE SALISBURY

Classification:

- international: **F16H55/14; F16H55/02;**

- european: F16H55/14

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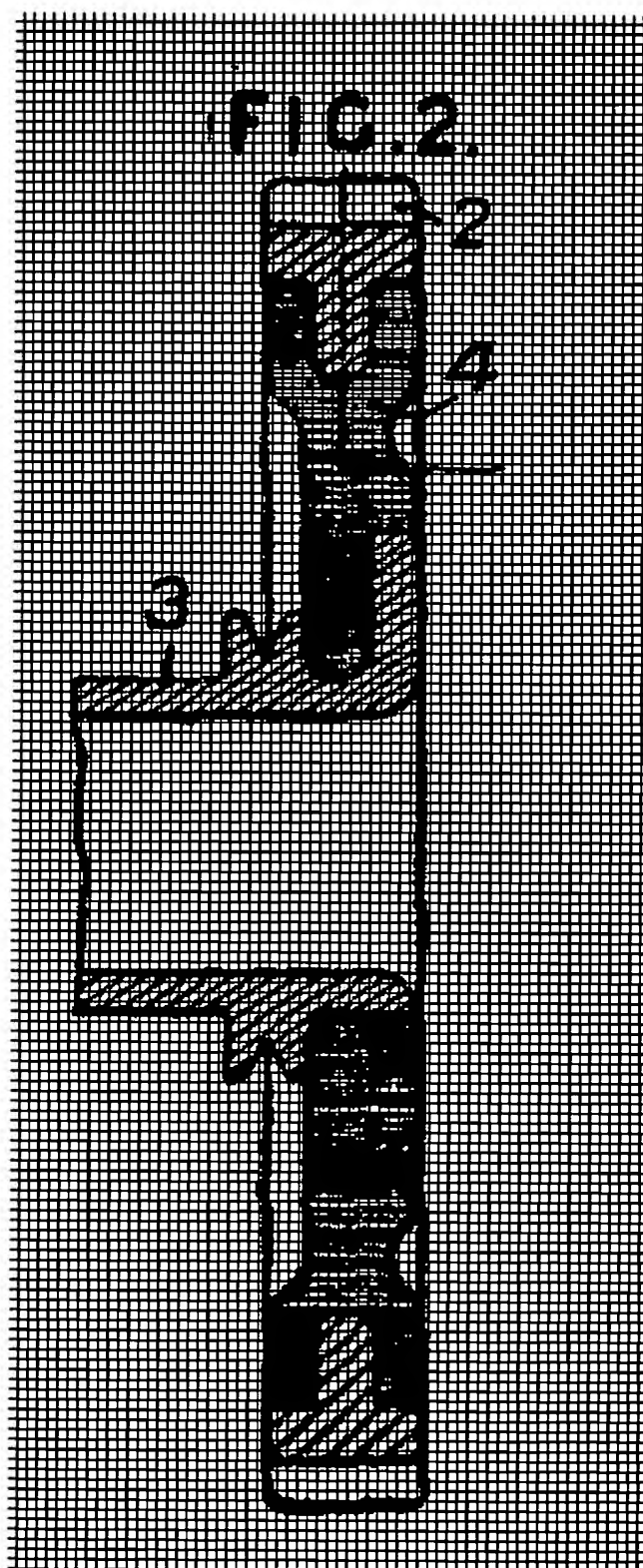
Priority number(s): GB19240027683 19241119

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Abstract of **GB243518**

243,518. British Thomson-Houston Co., Ltd., Young, A. P., and Salisbury, A. G. Nov. 19, 1924. Toothed wheels. - To prevent resonance in toothed wheels, the outer gunmetal, brass, steel or other metal rim 2 is notched to engage a web 4 of synthetic moulded compound, which engages holes and knurlings formed in the metal spindle or hub 3. In the magneto distributor gear-wheel shown, holes are provided for fixing the distributor brush-holder.

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PATENT SPECIFICATION

243,518

Application Date: Nov. 19, 1924. No. 27,888/24.

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Complete Accepted: Dec. 8, 1926.



PROVISIONAL SPECIFICATION.

Improvements in and relating to Gear Wheels.

We, THE BRITISH THOMSON-HOUSTON COMPANY LIMITED, a British company, having its registered office at Crown House, Aldwych, London, W.C. 2, 5 ARTHUR PRIMROSE YOUNG, of "Borrowell", Borrowell Lane, Kenilworth, and ALBERT GEORGE SALISBURY, of "Dovedale", Priory Road, Kenilworth, both in the County of Warwick, both 10 British subjects, do hereby declare the nature of this invention to be as follows:—

This invention relates to gear wheels of the type wherein the outer rim and 15 teeth are composed of solid metal. Such wheels are usually made entirely of one metal, and this form of construction may result in considerable noise or ring when the wheels are in mesh. The object of 20 the present invention is to provide simple and efficient means for deadening the gear noise and to that end it consists in providing a material of a dead nature between the outer rim of the wheel and 25 the central hub or spindle. This intermediate material may consist, for example, of synthetic or other suitable moulded compound, into which the rim and spindle or hub are moulded. Another 30 suitable intermediate material would be

a metallic substance of a dead nature, such as white metal.

One construction of wheel embodying the invention is illustrated in the accompanying drawing, in which Fig. 1 is a 35 part sectional face view and Fig. 2 a sectional end view of a magneto distributor gear wheel.

Referring to the drawing, the gear wheel comprises an outer metal rim 1 40 having solid metal teeth 2, a spindle 3 preferably of metal, and an intermediate synthetic moulded compound 4. The rim 1 may be made of any suitable metal 45 such as gunmetal, brass or steel and is provided with dovetailed projections 5 so that it can be firmly anchored in the moulded material 4. The spindle 3 may be made of steel and is also moulded into 50 the compound 4, being provided with a knurled edge 6 and holes 7 for ensuring intimate contact with the compound. Screw holes 9 are provided in the spindle 8 for fixing the distributor brush-holder.

Dated this 17th day of November, 1924. 55

JOHN GRAY,
Crown House, Aldwych, London,
W.C. 2,
Agent for the Applicants.

COMPLETE SPECIFICATION.

Improvements in and relating to Gear Wheels.

We, THE BRITISH THOMSON-HOUSTON COMPANY LIMITED, a British company, having its registered office at Crown House, Aldwych, London, W.C. 2, 60 ARTHUR PRIMROSE YOUNG, of "Borrowell", Borrowell Lane, Kenilworth, and ALBERT GEORGE SALISBURY, of "Dovedale", Priory Road, Kenilworth, both in the County of Warwick, both 65 British subjects, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to gear wheels having a rim and hub composed of metal 75

and an intermediate portion of a sound deadening material to avoid ring when the gears are in mesh. The object is to provide simple and efficient means for deadening the gear noise, and to that end, according to the invention, this intermediate material consists of a synthetic moulded compound, into which the rim and spindle or hub are moulded.

10 One construction of wheel embodying the invention is illustrated in the drawing left with the provisional specification, in which Fig. 1 is a part sectional face view and Fig. 2 a sectional end view of a magneto distributor gear wheel.

Referring to the drawing, the gear wheel comprises an outer metal rim 1 having solid metal teeth 2, a spindle 3 of metal, and an intermediate synthetic moulded compound 4. The rim 1 may be made of any suitable metal such as gun-metal, brass or steel and is provided with dovetailed projections 5 so that it can be firmly anchored in the moulded material 4. The spindle 3 may be made of steel and is also moulded into the compound 4, being provided with a knurled edge 6 and holes 7 for ensuring

intimate contact with the compound. 30
Screw holes 9 are provided in the spindle 3 for fixing the distributor brush-holder.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A gear wheel having a metal rim and hub and an intermediate portion of a sound deadening material, in which said sound deadening material is a synthetic moulded compound into which the rim and hub are moulded.

2. A gear wheel according to Claim 1, in which the rim is provided with projections for anchoring it in the moulded material.

3. A gear wheel according to Claims 1 or 2 having a flanged hub, in which the flange is provided with a knurled edge and perforations into which the synthetic material is moulded.

Dated this 11th day of August, 1925.

JOHN GRAY,
Crown House, Aldwych, London, W.C. 2,
Agent for the Applicants.

[This Drawing is a reproduction of the Original on a reduced scale.]

Fig.1.

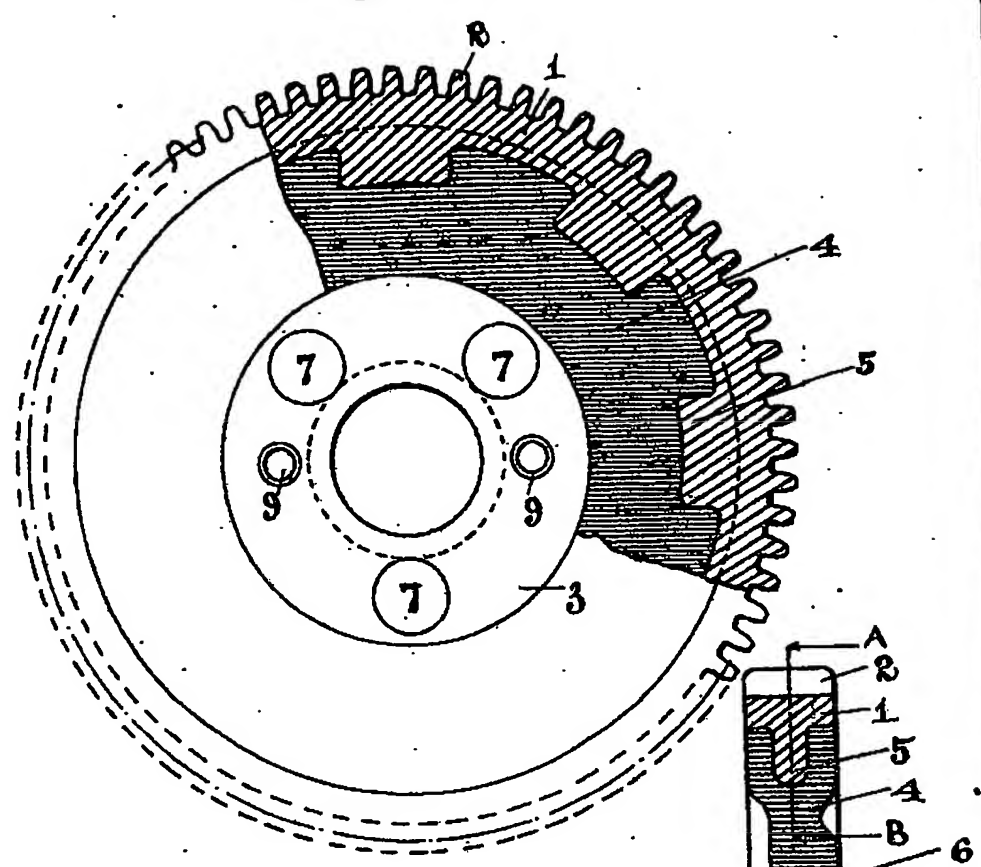
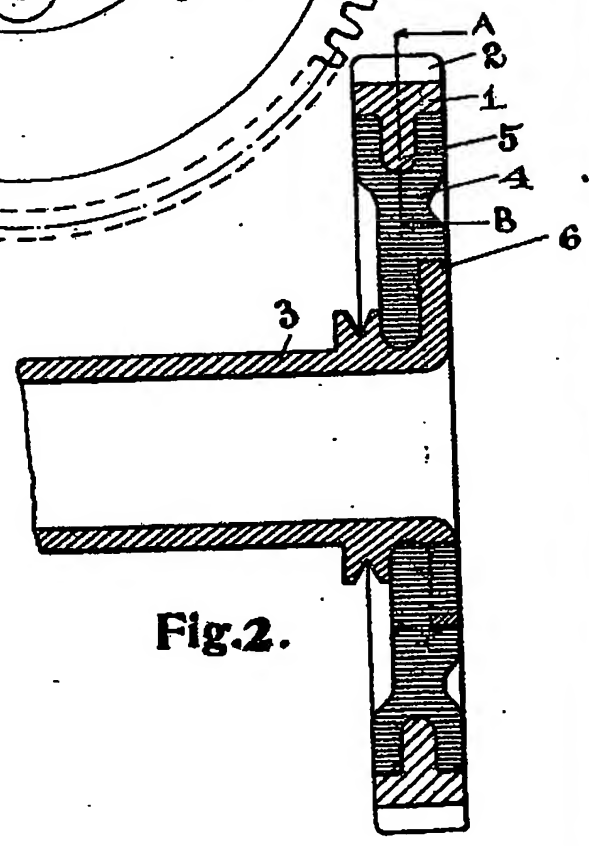


Fig.2.



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